

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1. **(Currently Amended)** A method for preparing a drug eluting medical device comprising:

applying first to said device at least one layer of a drug ~~incorporated in a material capable of eluting said drug~~;

applying second to said device a polymer having active functional groups capable of chemically binding biological molecules, characterised in that said second applying step takes place in a single step by means of cold plasma methods, and

depositing biological molecules on the surface of said polymer, said biological molecules having stable reactive functional groups.

Claim 2. **(Original)** A method according to claim 1, in which said polymers are chosen from among polymers having amine groups, carboxyl groups and sulphhydryl groups.

Claim 3. **(Original)** A method according to claim 2 in which the precursors of said polymers having amine groups are chosen from among allylamine, heptylamine, aliphatic amines and aromatic amines.

Claim 4. **(Original)** A method according to claim 2 in which the precursors of said polymers having carboxylic groups are chosen from between acrylic acid and methacrylic acid.

Claim 5. **(Original)** A method according to claim 2, in which the precursors of said polymers having sulphhydryl groups are chosen from among volatile mercaptans.

Claim 6. **(Previously Presented)** A method according to claim 1, in which said cold plasma methods comprise cold plasma produced under vacuum using discontinuous or continuous technology.

Claim 7. **(Original)** A method according to claim 6, in which said cold plasma

under vacuum is generated at a pressure which may vary between 0.01 and 10 mbar, at a power of between 1 and 500 W and for a period of time of not more than 30 minutes.

Claim 8. **(Previously Presented)** A method according to claim 1, in which said cold plasma methods consist in cold plasma produced at atmospheric pressure.

Claim 9. **(Previously Presented)** A method according to claim 1 in which the precursor of said polymer is in the form of a gas.

Claim 10. **(Previously Presented)** A method according to claim 1, in which the precursor of said polymer is in the form of a vapour.

Claim 11. **(Previously Presented)** A method according to claim 1, in which said polymer is applied in the form of film with a thickness of between 0.01 and 10 microns.

Claim 12. **(Cancelled).**

Claim 13. **(Previously Presented)** A method according to claim 1, in which said drug is chosen from the group consisting of anti-inflammatory, anti-proliferative and anti-migratory drugs and immunosuppressive agents.

Claim 14. **(Original)** A method according to claim 13, in which said drug is 4-[[4-methyl-1-piperazinyl)methyl]-N-[4-methyl-3-[[4-(3-pyridinyl)-2-pyrimidinyl]amino]-phenyl]benzamide methanesulphonate.

Claim 15. **(Currently Amended)** A method according to claim 1, in which the **drug is incorporated in said layer in a material capable of eluting said drug, and said drug-eluting** material is a **second** polymer selected from the group consisting of ~~from~~ **among** hydrophobic hydrocarbons, polyamides, polyacrylates and polymethacrylates.

Claim 16. **(Original)** A method according to claim 15, in which said hydrophobic hydrocarbons are chosen from among polystyrene, polyethylene, polybutadiene and polyisoprene.

Claim 17. **(Currently Amended)** A method according to claim 15, in which said **second** polymer is chosen from among polyhydroxybutylmethacrylate, polyhydroxyethylmethacrylate, where appropriate in combination with polybutadiene.

Claim 18. **(Previously Presented)** A method according to claim 1, in which said

drug is applied by means of immersion in a suitable solution or deposited by spraying.

Claim 19. **(Original)** A method according to claim 18 in which said drug eluting polymer is deposited in the form of film with a thickness of between 0.5 and 20 microns.

Claim 20. **(Previously Presented)** A method according to claim 1, in which when said drug is an anti-inflammatory, it is present in quantities of between 0.001 mg and 10 mg per device.

Claim 21. **(Previously Presented)** A method according to claim 1, in which when said drug is an anti-proliferative, it is present in quantities of between 0.0001 and 10 mg per device.

Claim 22. **(Previously Presented)** A method according to claim 1, in which when said drug has an anti-migratory action, it is present in quantities of between 0.0001 mg and 10 mg per device.

Claim 23. **(Previously Presented)** A method according to claim 1, in which when the drug is an immunosuppressant, it is present in quantities of between 0.0001 mg and 10 mg per device.

Claim 24. **(Previously Presented)** A method according to claim 1 in which when said drug is 4-[(4-methyl-1-piperazinyl)methyl]-N-[4-methyl-3-[[4-(3-pyridinyl)-2-pyrimidinyl]amino]-phenyl]benzamide methanesulphonate, it is present in quantities of between 0.001 mg and 10 mg per device.

Claim 25. **(Cancelled).**

Claim 26. **(Currently Amended)** A method according to claim 1, ~~[[25,]]~~ in which said biological molecules are chosen from among anti-thrombotic substances and hyaluronic acid.

Claim 27. **(Original)** A method according to claim 26, in which said biological molecules are heparin.

Claim 28. **(Previously Presented)** A method according to claim 26, in which said biological molecules are deposited by immersing the medical device in an aqueous solution containing said biological molecules in a concentration of 0.01% to 1% by weight.

Claim 29. **(Previously Presented)** A method according to claim 1, also comprising a preliminary step of cleaning/washing said medical device.

Claim 30. **(Original)** A method according to claim 29, in which said preliminary cleaning/washing step is followed by a step of pretreatment of said medical device to promote adhesion of the drug incorporated where appropriate in an eluting polymer to this device.

Claim 31. **(Previously Presented)** A method according to claim 1, also comprising the application of further biodegradable polymer layers over said biological molecule layer.

Claim 32. **(Currently Amended)** A method according to claim 1, comprising in succession the application of at least one first layer of 4-[(4-methyl-1-piperazinyl)methyl]-N-[4-methyl-3-[[4-(3-pyridinyl)-2-pyrimidinyl]amino]-phenyl]benzamide methanesulphonate included where appropriate in a polymer to the surface of said medical device, the application by cold plasma of at least one second layer of polymer of allylamine, **and** the bonding of heparin to said at least one second layer and application of at least one third layer of biodegradable polymer onto said heparin.

Claims 33-41 **(Cancelled)**.

Claim 42. **(Currently Amended)** A method according to claim 1, further comprising immersing said device including said polymer having **reactive active** functional groups in an aqueous bath containing at least one biological molecule so as to chemically bind said biological molecule to said functional groups.